

Patent claims

1. A measurement device with a support plate (1)
5 mounted on measurement cells, and with a display
device for displaying a force action line (7) for
a person standing on bearing surfaces (10, 10') of
the support plate (1), wherein lifting devices (9)
are arranged underneath the bearing surfaces (10,
10') and above the support plate (1).
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2. The measurement device as claimed in claim 1,
wherein the lifting devices (9) are designed to be
steplessly adjustable.
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3. The measurement device as claimed in claim 1,
wherein the lifting devices (9) are designed to be
individually adjustable.
- 20 4. The measurement device as claimed in one of claims
1 through 3, wherein the lifting devices (9) are
designed to be electrically adjustable.
5. The measurement device as claimed in one of claims
25 1 through 4, wherein the bearing surfaces (10,
10') are arranged parallel to one another on both
sides of a center plane.
6. The measurement device as claimed in claim 5,
30 wherein the bearing surfaces (10, 10') can be
varied by means of the lifting devices (9) in a
bearing angle parallel to the center plane.
7. The measurement device as claimed in claim 5 or 6,
35 wherein the bearing surfaces (10, 10') can be
varied by means of the lifting devices (9) in a
bearing angle transverse to the center plane.
8. The measurement device as claimed in one of claims

5 through 7, wherein the lifting devices (9) for the bearing surfaces (10, 10') are arranged symmetrically with respect to the center plane.

- 5 9. The measurement device as claimed in one of claims 5 through 8, wherein two lifting devices (9) are in each case present on both sides of the center plane.
- 10 10. The measurement device as claimed in one of claims 5 through 9, wherein at least three lifting devices (9) are in each case present on both sides of the center plane.
- 15 11. The measurement device as claimed in one of claims 1 through 10, wherein the lifting devices (9) consist of a central hollow spindle screw (22) in engagement with at least one sleeve part (15, 19) which is rotationally fixed and has an internal
20 thread (17, 21) cooperating with the spindle screw (22).
12. The measurement device as claimed in claim 11, wherein a drive mechanism of the spindle screw
25 (22) is formed with a toothed ring arrangement (27, 28) arranged in the inside of the spindle screw (22) and in engagement with an internal tooththing (25) of the spindle screw (22).
- 30 13. The measurement device as claimed in claim 12, wherein the toothed ring arrangement (27, 28) has a planetary gear configuration.
14. The measurement device as claimed in claim 12 or
35 13, wherein a drive motor of the toothed ring arrangement (27, 28) is also arranged in the inside of the spindle screw (22).
15. The measurement device as claimed in one of claims

10 through 14, wherein the lifting device (9) has upper and lower rotationally fixed sleeve parts (15, 19) which cooperate with oppositely directed external thread sections (23, 24), respectively,
5 of the spindle screw (22).

16. The measurement device as claimed in one of claims 11 through 15, wherein the spindle screw (22) has a diameter of greater than 5 cm, preferably
10 greater than 10 cm.

17. The measurement device as claimed in one of claims 1 through 16, wherein the display of a line of the center of gravity is formed by projection of part
15 of a plane of the center of gravity over the support plate (1).

18. The measurement device as claimed in claim 17, wherein a laser beam (7) oscillating
20 perpendicularly with respect to the support plate (1) is provided in order to project part of the plane of the center of gravity.

19. The measurement device as claimed in claim 17, wherein, in order to project part of the plane of
25 the center of gravity, a light beam is formed linearly by means of a lens optical system.